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 Conversion Factors For Production Traits. Source: INTERBULL 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = PCORR2\*Foreign Reliability

breed	country2	amilk	bmilk	afat	bfat	aprot	bprot	pcorr2
AYS	AUS	141.80	1.1760	9.300	1.3570	7.700	1.3410	0.4489
AYS	CAM	-492.42	1.1644	-27.871	0.9056	-16.937	1.4006	0.7225
AYS	DEU	556.40	0.8070	37.100	0.8420	26.800	0.8270	0.8100
AYS	DFS	-4373.50	52.7670	-160.500	2.0580	-111.500	1.5530	0.7921
AYS	EST	620.90	1.0420	25.200	1.0690	26.000	1.0050	0.6889
AYS	GBR	-414.70	2.0360	-19.000	2.5200	-12.400	2.4140	0.6724
AYS	IRL	560.63	2.7883	19.014	2.5478	22.991	2.4691	0.5625
AYS	LTU	-658.20	1.6210	-12.800	1.2750	-13.200	1.6520	0.5776
AYS	LVA	344.40	1.7240	16.900	1.7320	17.500	1.8510	0.6084
AYS	NLD	1448.93	0.6867	57.297	0.7230	52.572	0.5920	0.7569
AYS	NOR	-3499.60	42.5070	-144.800	1.7360	-99.000	1.3260	0.7396
AYS	NZL	-301.50	1.4470	15.800	1.4500	5.100	1.4900	0.3136
AYS	USA	-239.90	0.8230	-15.800	0.8610	-9.000	0.8460	0.7921
AYS	ZAF	-120.88	0.8148	-6.412	0.9519	-2.695	0.8780	0.6400

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 Conversion Factors For SCS Traits. Source: INTERBULL 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = SCORR2\*Foreign Reliability

breed	country2	a	b	scorr2
AYS	AUS	96.400	-17.5490	0.7056
AYS	CAM	13.740	0.8223	0.8464
AYS	DEU	60.800	0.3760	0.8836
AYS	DFS	59.300	0.4110	0.8836
AYS	EST	72.100	0.2690	0.7921
AYS	GBR	98.900	-0.4730	0.8649
AYS	LTU	96.700	-12.6230	0.7569
AYS	LVA	95.600	-11.3420	0.7744
AYS	NLD	-21.872	1.2299	0.8281
AYS	NOR	63.800	0.3540	0.8100
AYS	NZL	93.700	-12.4350	0.6889
AYS	USA	170.900	-24.0260	0.8464
AYS	ZAF	99.503	-0.1960	0.7569

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 Conversion Factors For Type. Source = INTERBULL MACE 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=AUS

c c f  
 a o o  
 n u r a b t

b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r
e	i	y	i	u	u	r
d	t	2	t	e	e	2

AYS	CONFORMATION	AUS	CONFORMATION	-6.700	2.8570	0.3
AYS	FEET AND LEGS	AUS	OVERALL FEET & LEG	-5.216	3.8644	
AYS	MAMMARY SYSTEM	AUS	OVERALL UDDER SCORE	-6.560	2.6608	
AYS	STATURE	AUS	STATURE	-4.400	8.6329	
AYS	CHEST WIDTH	AUS	CHEST WIDTH	1.409	13.2874	
AYS	BODY DEPTH	AUS	BODY DEPTH	-1.410	9.9232	
AYS	PIN WIDTH	AUS	RUMP WIDTH	-2.599	11.1697	
AYS	RUMP ANGLE	AUS	RUMP ANGLE	-1.978	13.0511	
AYS	FOOT ANGLE	AUS	FOOT ANGLE	-1.943	14.2713	
AYS	REAR LEGS SIDE VIEW	AUS	REAR LEG SET	3.775	19.6143	
AYS	REAR LEG REAR VIEW	AUS	REAR LEG REAR VIEW	-3.438	21.0466	
AYS	UDDER DEPTH	AUS	UDDER DEPTH	-5.272	9.2030	
AYS	MEDIAN SUSPENSORY	AUS	MEDIAN SUSPENSORY	-3.846	12.1815	
AYS	FORE ATTACHMENT	AUS	FORE UDDER	-4.552	11.2722	
AYS	TEAT PLACEMENT	AUS	FRONT TEAT PLACEMENT	-1.226	9.6627	
AYS	TEAT LENGTH	AUS	TEAT LENGTH	1.411	8.6845	
AYS	REAR ATTACHMENT HEIGHT	AUS	REAR UDDER HEIGHT	-8.211	9.6731	
AYS	REAR TEAT PLACEMENT	AUS	REAR TEAT PLACEMENT	-2.092	14.3995	
AYS	ANGULARITY	AUS	ANGULARITY	-7.389	9.3890	

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 Conversion Factors For Type. Source = INTERBULL MACE 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=CAM

	c	c	f			
	a	o	o			
	n	u	r	a	b	t
b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r

e d	i t	y 2	i t	u e	u e	r 2
AYS	CONFORMATION		CAM CONFORMATION	-9.396	0.6876	0.6
6						
AYS	FEET AND LEGS		CAM OVERALL FEET & LEG	-7.490	0.6135	
AYS	MAMMARY SYSTEM		CAM OVERALL UDDER SCORE	-9.840	0.7283	
AYS	STATURE		CAM STATURE	-4.434	1.0292	
AYS	CHEST WIDTH		CAM CHEST WIDTH	-1.289	0.8709	
AYS	BODY DEPTH		CAM BODY DEPTH	-3.102	1.0616	
AYS	PIN WIDTH		CAM RUMP WIDTH	-3.967	0.7899	
AYS	RUMP ANGLE		CAM RUMP ANGLE	-0.089	1.0060	
AYS	FOOT ANGLE		CAM FOOT ANGLE	-3.875	0.6534	
AYS	REAR LEGS SIDE VIEW		CAM REAR LEG SET	4.604	0.7970	
AYS	REAR LEG REAR VIEW		CAM REAR LEG REAR VIEW	-5.770	0.7054	
AYS	UDDER DEPTH		CAM UDDER DEPTH	-4.140	1.1543	
AYS	MEDIAN SUSPENSORY		CAM MEDIAN SUSPENSORY	-5.181	0.7192	
AYS	FORE ATTACHMENT		CAM FORE UDDER	-7.173	0.6965	
AYS	TEAT PLACEMENT		CAM FRONT TEAT PLACEMENT	-3.143	0.7451	
AYS	TEAT LENGTH		CAM TEAT LENGTH	2.605	0.6325	
AYS	REAR ATTACHMENT HEIGHT		CAM REAR UDDER HEIGHT	-8.731	0.7767	
AYS	REAR TEAT PLACEMENT		CAM REAR TEAT PLACEMENT	-2.775	0.9078	
AYS	ANGULARITY		CAM ANGULARITY	-9.025	0.7429	

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Conversion Factors For Type. Source = INTERBULL MACE 2108  
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Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=DEU

b r e e d	c a n t r e i t	c o u n t r y 2	f o r e i g n	a b v a l u e	b v a l u e	t c o r r e c t i o n
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AYS	FEET AND LEGS	DEU	OVERALL FEET & LEG	-29.438	0.2912
AYS	MAMMARY SYSTEM	DEU	OVERALL UDDER SCORE	-30.626	0.2853
AYS	STATURE	DEU	STATURE	-42.820	0.4445
AYS	CHEST WIDTH	DEU	CHEST WIDTH	-51.585	0.5316
AYS	BODY DEPTH	DEU	BODY DEPTH	-52.665	0.5313
AYS	PIN WIDTH	DEU	RUMP WIDTH	-53.867	0.5648
AYS	RUMP ANGLE	DEU	RUMP ANGLE	-68.405	0.6440
AYS	FOOT ANGLE	DEU	FOOT ANGLE	-33.470	0.3656
AYS	REAR LEGS SIDE VIEW	DEU	REAR LEG SET	-64.139	0.6281
AYS	REAR LEG REAR VIEW	DEU	REAR LEG REAR VIEW	-51.991	0.5438
AYS	UDDER DEPTH	DEU	UDDER DEPTH	-43.321	0.4333
AYS	MEDIAN SUSPENSORY	DEU	MEDIAN SUSPENSORY	-42.579	0.4138
AYS	FORE ATTACHMENT	DEU	FORE UDDER	-44.497	0.4259
AYS	FRONT TEAT PLACEMENT	DEU	FRONT TEAT PLACEMENT	-42.554	0.4137
AYS	TEAT LENGTH	DEU	TEAT LENGTH	-35.229	0.3373
AYS	REAR ATTACHMENT HEIGHT	DEU	REAR UDDER HEIGHT	-37.729	0.3374
AYS	REAR TEAT PLACEMENT	DEU	REAR TEAT PLACEMENT	-45.136	0.4223
AYS	ANGULARITY	DEU	ANGULARITY	-42.477	0.4060

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 Conversion Factors For Type. Source = INTERBULL MACE 2108  
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 Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=DFS

	c	c	f			
	a	o	o		a	b
	n	u	r		v	v
b	t	n	t		a	a
r	r	t	r		l	l
e	a	r	a		u	u
e	i	y	i		e	e
d	t	2	t			2
AYS	CONFORMATION	DFS	OVERALL CONFORMATION	-42.437	0.3442	0.4
AYS	FEET AND LEGS	DFS	OVERALL FEET & LEG	-38.288	0.3546	
AYS	MAMMARY SYSTEM	DFS	OVERALL UDDER SCORE	-46.580	0.4358	

AYS	STATURE	DFS	STATURE	-70.810	0.6929
AYS	CHEST WIDTH	DFS	CHEST WIDTH	-43.439	0.4416
AYS	BODY DEPTH	DFS	BODY DEPTH	-48.324	0.4401
AYS	PIN WIDTH	DFS	RUMP WIDTH	-52.261	0.5165
AYS	RUMP ANGLE	DFS	RUMP ANGLE	-56.312	0.5708
AYS	FOOT ANGLE	DFS	FOOT ANGLE	-51.138	0.5056
AYS	REAR LEGS SIDE VIEW	DFS	REAR LEG SET	-62.217	0.6715
AYS	REAR LEG REAR VIEW	DFS	REAR LEG REAR VIEW	-52.350	0.5080
AYS	UDDER DEPTH	DFS	UDDER DEPTH	-49.534	0.5068
AYS	MEDIAN SUSPENSORY	DFS	MEDIAN SUSPENSORY	-36.018	0.3165
AYS	FORE ATTACHMENT	DFS	FORE UDDER	-41.651	0.3978
AYS	FRONT TEAT PLACEMENT	DFS	FRONT TEAT PLACEMENT	-44.975	0.4472
AYS	TEAT LENGTH	DFS	TEAT LENGTH	-43.017	0.4270
AYS	REAR ATTACHMENT HEIGHT	DFS	REAR UDDER HEIGHT	-52.501	0.4698
AYS	REAR TEAT PLACEMENT	DFS	REAR TEAT PLACEMENT	-48.326	0.4580
AYS	ANGULARITY	DFS	ANGULARITY	-67.113	0.6041

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Conversion Factors For Type. Source = INTERBULL MACE 2108  
Converted Canadian Proof = A + (B\* Foreign Proof)  
Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=GBR

	c	c	f			
	a	o	o			
	n	u	r	a	b	t
b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r
e	i	y	i	u	u	r
d	t	2	t	e	e	2
AYS	FEET AND LEGS	GBR	OVERALL FEET & LEG	-2.604	3.3507	
AYS	MAMMARY SYSTEM	GBR	OVERALL UDDER SCORE	-1.580	3.0386	
AYS	STATURE	GBR	STATURE	-2.967	4.6218	
AYS	CHEST WIDTH	GBR	CHEST WIDTH	1.728	3.9092	

AYS	BODY DEPTH	GBR	BODY DEPTH	-0.014	3.3685
AYS	PIN WIDTH	GBR	RUMP WIDTH	-1.053	3.9704
AYS	RUMP ANGLE	GBR	RUMP ANGLE	-1.796	3.8195
AYS	FOOT ANGLE	GBR	FOOT ANGLE	-1.901	3.0924
AYS	REAR LEGS SIDE VIEW	GBR	REAR LEG SET	-0.223	3.3569
AYS	UDDER DEPTH	GBR	UDDER DEPTH	-0.454	3.0159
AYS	MEDIAN SUSPENSORY	GBR	MEDIAN SUSPENSORY	-1.790	2.6937
AYS	FORE ATTACHMENT	GBR	FORE UDDER	0.054	3.3548
AYS	TEAT PLACEMENT	GBR	FRONT TEAT PLACEMENT	1.924	3.4608
AYS	TEAT LENGTH	GBR	TEAT LENGTH	-0.740	3.3715
AYS	REAR ATTACHMENT HEIGHT	GBR	REAR UDDER HEIGHT	-2.584	3.5620
AYS	ANGULARITY	GBR	ANGULARITY	-5.926	4.8624

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Conversion Factors For Type. Source = INTERBULL MACE 2108  
Converted Canadian Proof = A + (B\* Foreign Proof)  
Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=NLD

	c	c	f			
	a	o	o			
	n	u	r	a	b	t
b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r
e	i	y	i	u	u	r
d	t	2	t	e	e	2
AYS	CONFORMATION	NLD	CONFORMATION	-127.732	1.3310	0.5
6						
AYS	FEET AND LEGS	NLD	OVERALL FEET & LEG	-61.447	0.6091	
AYS	MAMMARY SYSTEM	NLD	OVERALL UDDER SCORE	-113.689	1.2017	
AYS	STATURE	NLD	STATURE	-114.044	1.2727	
AYS	CHEST WIDTH	NLD	CHEST WIDTH	-132.650	1.4405	
AYS	BODY DEPTH	NLD	BODY DEPTH	-108.667	1.2149	
AYS	PIN WIDTH	NLD	RUMP WIDTH	-84.824	0.9173	
AYS	RUMP ANGLE	NLD	RUMP ANGLE	-99.985	0.9962	
AYS	FOOT ANGLE	NLD	FOOT ANGLE	-94.729	0.9871	

AYS	REAR LEGS SIDE VIEW	NLD	REAR LEG SET	-117.680	1.1441
AYS	REAR LEG REAR VIEW	NLD	REAR LEG REAR VIEW	-119.045	1.2161
AYS	UDDER DEPTH	NLD	UDDER DEPTH	-121.641	1.2834
AYS	MEDIAN SUSPENSORY	NLD	MEDIAN SUSPENSORY	-100.545	1.0222
AYS	FORE ATTACHMENT	NLD	FORE UDDER	-120.847	1.2473
AYS	TEAT PLACEMENT	NLD	FRONT TEAT PLACEMENT	-110.397	1.1612
AYS	TEAT LENGTH	NLD	TEAT LENGTH	-85.695	0.8768
AYS	REAR ATTACHMENT HEIGHT	NLD	REAR UDDER HEIGHT	-98.560	1.0428
AYS	REAR TEAT PLACEMENT	NLD	REAR TEAT PLACEMENT	-108.471	1.1203
AYS	ANGULARITY	NLD	ANGULARITY	-106.813	1.1735

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 Conversion Factors For Type. Source = INTERBULL MACE 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=NOR

	c	c	f			
	a	o	o		a	b
	n	u	r		v	v
b	t	n	t		a	a
r	r	t	r		l	l
e	a	r	a		u	u
e	i	y	i		e	e
d	t	2	t			2
AYS	CONFORMATION	NOR	OVERALL CONFORMATION	-44.065	0.3415	0.5
8						
AYS	FEET AND LEGS	NOR	OVERALL FEET & LEG	-32.931	0.2591	
AYS	MAMMARY SYSTEM	NOR	OVERALL UDDER SCORE	-48.691	0.3893	
AYS	STATURE	NOR	STATURE	-50.282	0.4342	
AYS	CHEST WIDTH	NOR	CHEST WIDTH	-32.761	0.3778	
AYS	BODY DEPTH	NOR	BODY DEPTH	-37.668	0.3354	
AYS	PIN WIDTH	NOR	RUMP WIDTH	-35.556	0.3717	
AYS	RUMP ANGLE	NOR	RUMP ANGLE	-44.478	0.4608	
AYS	FOOT ANGLE	NOR	FOOT ANGLE	-34.587	0.3249	
AYS	REAR LEGS SIDE VIEW	NOR	REAR LEG SET	-37.028	0.4211	

AYS	REAR LEG REAR VIEW	NOR	REAR LEG REAR VIEW	-36.344	0.3282
AYS	UDDER DEPTH	NOR	UDDER DEPTH	-49.027	0.4285
AYS	MEDIAN SUSPENSORY	NOR	MEDIAN SUSPENSORY	-38.022	0.3063
AYS	FORE ATTACHMENT	NOR	FORE UDDER	-42.285	0.3563
AYS	FRONT TEAT PLACEMENT	NOR	FRONT TEAT PLACEMENT	-46.407	0.4211
AYS	TEAT LENGTH	NOR	TEAT LENGTH	-36.556	0.3572
AYS	REAR ATTACHMENT HEIGHT	NOR	REAR UDDER HEIGHT	-48.080	0.3695
AYS	REAR TEAT PLACEMENT	NOR	REAR TEAT PLACEMENT	-39.366	0.3692
AYS	ANGULARITY	NOR	ANGULARITY	-52.387	0.3798

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Conversion Factors For Type. Source = INTERBULL MACE 2108  
Converted Canadian Proof = A + (B\* Foreign Proof)  
Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=NZL

	c	c	f			
	a	o	o		a	b
	n	u	r		v	v
b	t	n	t		a	a
r	r	t	r		l	l
e	a	r	a		u	u
e	i	y	i		e	e
d	t	2	t			2
AYS	CONFORMATION	NZL	OVERALL CONFORMATION	-9.366	9.1547	0.3
2						
AYS	MAMMARY SYSTEM	NZL	OVERALL UDDER SCORE	-10.325	12.1768	
AYS	STATURE	NZL	STATURE	-12.585	10.8804	
AYS	CHEST WIDTH	NZL	CHEST WIDTH	1.308	12.4802	
AYS	BODY DEPTH	NZL	BODY DEPTH	-0.949	10.7823	
AYS	PIN WIDTH	NZL	RUMP WIDTH	-4.902	15.7152	
AYS	RUMP ANGLE	NZL	RUMP ANGLE	-4.992	18.9588	
AYS	REAR LEGS SIDE VIEW	NZL	REAR LEG SET	5.420	33.9049	
AYS	MEDIAN SUSPENSORY	NZL	MEDIAN SUSPENSORY	-6.387	11.6689	
AYS	FORE ATTACHMENT	NZL	FORE UDDER	-8.063	11.9111	
AYS	FRONT TEAT PLACEMENT	NZL	FRONT TEAT PLACEMENT	-6.144	19.6960	
AYS	REAR ATTACHMENT HEIGHT	NZL	REAR UDDER HEIGHT	-8.799	13.6870	



AYS REAR TEAT PLACEMENT NZL REAR TEAT PLACEMENT -6.171 17.6585

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 Conversion Factors For Type. Source = INTERBULL MACE 2108  
 Converted Canadian Proof = A + (B\* Foreign Proof)  
 Converted Proof Reliability = TCORR2\*Foreign Reliability

country2=USA

	c	c	f			
	a	o	o		a	b
	n	u	r		v	v
b	t	n	t		a	a
r	r	t	r		l	l
e	a	r	a		u	u
e	i	y	i		e	e
d	t	2	t			2
AYS	CONFORMATION	USA	CONFORMATION	-2.846	7.5115	0.6
7						
AYS	FEET AND LEGS	USA	OVERALL FEET & LEG	-2.832	3.1322	
AYS	MAMMARY SYSTEM	USA	OVERALL UDDER SCORE	-1.423	4.8478	
AYS	STATURE	USA	STATURE	0.497	2.5759	
AYS	CHEST WIDTH	USA	CHEST WIDTH	1.280	4.8526	
AYS	BODY DEPTH	USA	BODY DEPTH	0.613	3.6039	
AYS	PIN WIDTH	USA	RUMP WIDTH	1.016	3.8124	
AYS	RUMP ANGLE	USA	RUMP ANGLE	-1.903	3.4887	
AYS	FOOT ANGLE	USA	FOOT ANGLE	-1.570	5.1348	
AYS	REAR LEGS SIDE VIEW	USA	REAR LEG SET	-0.150	6.6539	
AYS	REAR LEG REAR VIEW	USA	REAR LEG REAR VIEW	-1.722	-5.2688	
AYS	UDDER DEPTH	USA	UDDER DEPTH	0.080	4.0777	
AYS	MEDIAN SUSPENSORY	USA	MEDIAN SUSPENSORY	-2.583	3.7775	
AYS	FORE ATTACHMENT	USA	FORE UDDER	-0.585	3.4741	
AYS	TEAT PLACEMENT	USA	FRONT TEAT PLACEMENT	-0.383	3.5689	
AYS	TEAT LENGTH	USA	TEAT LENGTH	0.885	2.7979	
AYS	REAR ATTACHMENT HEIGHT	USA	REAR UDDER HEIGHT	-1.134	3.5705	
AYS	REAR TEAT PLACEMENT	USA	REAR TEAT PLACEMENT	0.129	3.9686	
AYS	ANGULARITY	USA	ANGULARITY	-1.201	4.8715	

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CALCULATION OF FAT% AND PROTEIN% FOR AUGUST 2021

BREED	BMILK	BFAT	BPRT
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AYS	7972	333	273
BSW	8455	361	303
CN	5795	255	210
GUE	7049	327	249
JER	6987	360	271
HOL	10720	424	350
MS	7100	281	235

$$\text{EBVFAT\%} = 200 * [ (\text{BFAT} + \text{EBVFAT} * 0.5) / (\text{BMILK} + \text{EBVMILK} * 0.5) - (\text{BFAT} / \text{BMILK}) ]$$

$$\text{EBVPROT\%} = 200 * [ (\text{BPRT} + \text{EBVPRT} * 0.5) / (\text{BMILK} + \text{EBVMILK} * 0.5) - (\text{BPRT} / \text{BMILK}) ]$$

EXAMPLE:

A HOLSTEIN bull has EBV MILK=+1000, EBVFAT=+50, EBVPROT=+40

$$\begin{aligned} \text{EBVFAT\%} &= 200 * [ (424 + 50 * 0.5) / (10720 + 1000 * 0.5) - (424 / 11E3) ] \\ &= 200 * [ (424 + 25) / (10720 + 500) - (0.03955) ] \\ &= 200 * [ 0.04002 - 0.03955 ] \\ &= 200 * 0.00047 \\ &= 0.09 \end{aligned}$$

$$\begin{aligned} \text{EBVPROT\%} &= 200 * [ (350 + 40 * 0.5) / (10720 + 1000 * 0.5) - (350 / 11E3) ] \\ &= 200 * [ (350 + 20) / (10720 + 500) - (0.03265) ] \\ &= 200 * [ 0.03298 - 0.03265 ] \\ &= 200 * 0.00033 \\ &= 0.07 \end{aligned}$$